

Summary of Cancer Incidence and Mortality for Zip Code 29664 (Mountain Rest, SC)

Cancer Incidence in Zip Code 29664

The first step in the analysis of cancer data for this zip code was to look at the number of new cancer cases diagnosed in the zip code and compare this to the number of cancer cases expected in this zip code (see Table 1). This first step determines if there is anything unusual with cancer patterns in the area. The number of "expected" cancer cases is calculated by using South Carolina cancer rates and applying them to the population of the zip code.

Table 1 shows what types of cancer were diagnosed in zip code 29664 from 1996-2000, and how many cancer cases were expected. Overall, there were fewer cases of cancer than expected in zip code 29664. The most common types of cancer in this zip code were female breast, lung and prostate cancers. These types of cancer are also the most common cancers occurring across all of South Carolina.

The analysis revealed no specific types of cancer where the number of cases was significantly higher than expected. A total of 36 new cancer cases occurred in zip code 29664, while 46 cases of cancer were expected to occur during this 5 year time period.

Zip code 29664 is a very small zip code. Therefore, the number of cases occurring in all cancer sites was very small. We must use caution when analyzing small numbers. As a general rule, a cancer site with 5 or more expected cases will be analyzed; below that the numbers are considered too small to be reliable. The remaining cancer cases that occurred in zip code 29664 occurred in sites where fewer than 5 cases of cancer were expected. Therefore, these sites were not analyzed and were excluded from Table 1.

Cancer Deaths in Zip Code 29664

To assess cancer deaths in this zip code, cancer mortality data from 1998-2002 were used. The process used to analyze new cancer cases was also used to analyze cancer deaths. Table 2 shows the number of cancer deaths that occurred in this zip code and the number expected. Overall, there were fewer cancer deaths than expected in zip code 29664. A total of 14 cancer deaths occurred in this zip code between 1998-2002, while 22 deaths were expected to occur.

The analysis revealed no specific cancer sites had a significantly higher than expected number of cancer deaths.

Other types of cancer death did occur; however, these cancer deaths occurred in sites where fewer than 5 cancer deaths were expected. Therefore, these sites were not analyzed and were excluded from Table 2.

Conclusions

To summarize, overall fewer cases of cancer occurred in zip code 29664 than expected. The number of cancer deaths was also less than expected. There were no specific cancer types with an increased number of cases or deaths.

In order for a true cancer cluster to exist, the number of cancers occurring must be more than would be expected by chance. Along with statistical testing, there are several other criteria that determine whether a true cancer cluster exists. First, a cancer cluster would more likely involve rarer types of cancer rather than more common cancers like lung or prostate cancers. Also, a cancer cluster would occur with one specific type of cancer rather than having excesses in several different types of cancer.

Taking all these criteria into consideration, the South Carolina Central Cancer Registry determined there is no evidence of cancer clustering in zip code 29664.

For questions about this report, please contact Susan Bolick-Aldrich, MSPH, Director of the South Carolina Central Cancer Registry.

Report provided by:

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Table 1. Analysis of New Cancer Cases in Zip Code 29664, 1996-2000

<u>Site</u>	<u>Observed</u>	<u>Expected</u>	<u>Observed/Expected</u>	<u>Chi-SquareTest*</u>
Female Breast	8	6.22	1.29	0.51
Lung/Bronchus	8	7.57	1.06	0.02
Prostate	6	8.48	0.71	0.72
Colon/Rectum	2	5.30	0.38	2.05
All Sites	36	45.70	0.79	2.06

Table 2. Analysis of Cancer Deaths in Zip Code 29664, 1998-2002

<u>Site</u>	<u>Observed</u>	<u>Expected</u>	<u>Observed/Expected</u>	<u>Chi-SquareTest*</u>
Lung/Bronchus	5	6.58	0.76	0.38
All Sites	14	21.50	0.65	2.62

Excludes in situ cases of cancer to allow for comparison.

Cancer sites with less than 5 cases of cancer or cancer deaths expected are not analyzed due to the unreliability of statistical tests based on small numbers. Cancer sites with fewer than 5 expected cancer cases or deaths are excluded from this table.

*The Chi-Square statistical test allows us to determine if the difference between what is observed and what is expected is significant. If the value is greater than 3.84, then we are 95% confident that the observed number of cases is significantly different from the expected number of cases.

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